AD_____

Award Number: DAMD17-99-1-9014

TITLE: Identification of Cellular and Molecular Markers of Prostate Cancer Progression in Racial-Ethnic Minorities

PRINCIPAL INVESTIGATOR: Richard J. Cote, M.D.

CONTRACTING ORGANIZATION: University of Southern California
Los Angeles, California 90033

REPORT DATE: November 1999

TYPE OF REPORT: Annual

PREPARED FOR: U.S. Army Medical Research and Materiel Command
Fort Detrick, Maryland 21702-5012

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 074-0188

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	November 1999	Annual (1 Nov 98 - 31 Oct 99)

4. TITLE AND SUBTITLE
Identification of Cellular and Molecular Markers of Prostate Cancer Progression in Racial-Ethnic Minorities

5. FUNDING NUMBERS
DAMD17-99-1-9014

6. AUTHOR(S)
Richard J. Cote, M.D.

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
University of Southern California/Norris Cancer Center

Los Angeles, California 90033

E-MAIL:
cote_r@mikey.hsc.usc.edu

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)
U.S. Army Medical Research and Materiel Command
Fort Detrick, Maryland 21702-5012

10. SPONSORING / MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION / AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

12b. DISTRIBUTION CODE

13. ABSTRACT ***(Maximum 200 Words)***

This is a study looking at the differences in tumor behavior (molecular and cellular behavior) observed in prostate cancer arising in men of different racial groups. Characterization of those pathways involved in tumor invasion, metastasis, and loss of growth control, including their regulation and interconnections, should provide insight into the behavior of prostate cancer. We have defined a cohort of men with prostate cancer, 400 African-Americans and 300 Latino men. These men had already signed a tissue release form, which we believed would suffice for this study to allow us to secure tissue release from hospitals. However, due to the nature of this particular study and new language requirements in the consents as required by our Institutional Review Board, new consents had to be developed, substantially delaying start up for this study. 210 men have signed the forms and returned them to us by mail. We have given 163 tissue release request forms to the Tissue Procurement Core Resource. We are in the process of calling subjects and tracking cases through our cancer registry follow-up department. The first tissues are now being received and we have begun the immunohistochemical assays on these samples.

14. SUBJECT TERMS	15. NUMBER OF PAGES
Prostate	12
	16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	Unlimited

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. Z39-18
298-102

FOREWORD

Opinions, interpretations, conclusions and recommendations are those of the author and are not necessarily endorsed by the U.S. Army.

___ Where copyrighted material is quoted, permission has been obtained to use such material.

___ Where material from documents designated for limited distribution is quoted, permission has been obtained to use the material.

___ Citations of commercial organizations and trade names in this report do not constitute an official Department of Army endorsement or approval of the products or services of these organizations.

N/A In conducting research using animals, the investigator(s) adhered to the "Guide for the Care and Use of Laboratory Animals," prepared by the Committee on Care and use of Laboratory Animals of the Institute of Laboratory Resources, national Research Council (NIH Publication No. 86-23, Revised 1985).

X For the protection of human subjects, the investigator(s) adhered to policies of applicable Federal Law 45 CFR 46.

N/A In conducting research utilizing recombinant DNA technology, the investigator(s) adhered to current guidelines promulgated by the National Institutes of Health.

N/A In the conduct of research utilizing recombinant DNA, the investigator(s) adhered to the NIH Guidelines for Research Involving Recombinant DNA Molecules.

N/A In the conduct of research involving hazardous organisms, the investigator(s) adhered to the CDC-NIH Guide for Biosafety in Microbiological and Biomedical Laboratories.

11/29/99

PI - Signature Date

TABLE OF CONTENTS

PAGE

Front Cover:.....1

Report Documentation Page:.....2

Foreword:.....3

Table of Contents:.....4

Introduction:.....5

Body:.....6

Key Research Accomplishments:.....7

Reportable Outcomes:.....8

Conclusions:.....9

Reference:.....10

Appendices:.....11

Final Reports:.....12

INTRODUCTION

This is a study looking at the differences in tumor behavior (molecular and cellular behavior) observed in prostate cancer arising in men of different racial groups. Further, characterization of those pathways involved in tumor invasion, metastasis, and loss of growth control, including their regulation and interconnections, should provide insight into the behavior of prostate cancer, and lead to greater predictability of outcome for individual patients. We have defined a cohort of men with prostate cancer, 400 African-Americans and 300 Latino men and we are retrieving prostate tissue from the hospitals. Once we receive the prostate tissue we will compare the tumors from these two cohorts for molecular/cellular changes which characterize the pathways of tumor progression, particularly invasion and metastases. We will focus of the following pathways: (a) cellular proliferation; (b) tumor angiogenesis and regulation of the tumor neovascular response; (c) cell-cell interactions; (d) cell cycle regulation; and (e) alterations in tumor suppressor genes.

BODY

We have identified all of the African-American and Latino-American prostate cancer cases in the multi-ethnic cohort. 700 men have been identified and contacted by mail, and in some cases, by phone and asked to sign the tissue release forms. These men had already signed a release form, which we believed would suffice for this study to allow us to secure tissue release from hospitals. However, due to the nature of this particular study and new language requirements in the consents as required by our IRB, new consents had to be developed, substantially delaying start up for this study. These consents were approved by the University of Southern California IRB office and sent to the men identified as having prostate cancer through follow-up linkages with our SEER cancer registry. 210 men have signed the forms and returned them to us by mail. We are in the process of calling the other respondents to encourage them to sign and return the consent forms. We are also tracking cases through our cancer registry follow-up department, whose letter has been returned to us as undeliverable. Ten subjects have died and we are trying to secure tissue release forms signed by next-of-kin.

We have given 163 tissue release request forms to date to the Tissue Procurement Core Resource at USC/Norris Comprehensive Cancer Center. Forty-seven additional signed consent forms are ready for submission to the Tissue Procurement Core Resource. The first tissues are now being received from hospitals and we have begun the immunohistochemical assays on these samples. Once we receive sufficient tissue, we will begin comparing tumors from the two groups of men for molecular and cellular changes.

KEY RESEARCH ACCOMPLISHMENTS

We have the lab functioning, and have begun the appropriate assays. We will be looking at the specific markers outlined in the Statement of Work in the upcoming year.

REPORTABLE OUTCOMES

None to date.

CONCLUSIONS

None to date.

REFERENCES

Not applicable at this time.

APPENDICES

None at this time.

FINAL REPORTS

Not applicable at this time.